7.4 AIRSPACE

7.4.1 Affected Environment

The affected airspace environment is described below in terms of its principal attributes, namely controlled and uncontrolled airspace, special use airspace, military training routes, en route airways, airports and airfields, and air traffic control. Jet routes, all above 18,000 feet (5,486 meters), are well above the activities proposed and are thus not considered as part of the ROI. The maximum height of each individual FTI antenna is 100 feet or the FAA-approved height, whichever is lower. Prior to final design, the Army will coordinate with the FAA to ensure that each antenna does not obstruct air navigation, including approach and departure clearance near any runway or airfield.

Controlled and Uncontrolled Airspace

The airspace in the KTA/KLOA ROI is composed of uncontrolled Class G airspace, from the surface to a ceiling of 1,200 feet (366 meters), and controlled Class E airspace over 1,200 feet (366 meters) above the rest of the ROI, unless the special use airspace, discussed separately below, is activated.

Appendix F provides a full definition of the different classes of airspace and an explanatory diagram.

Special Use Airspace

The A-311 alert area lies above KTA, extending to 500 feet (152 meters) AGL. Its effective altitudes, time of use, and controlling agency are given in Table 7-10. Alert areas are depicted on aeronautical charts to inform nonparticipating pilots of areas that may contain a high volume of pilot training or an unusual type of aerial activity.

Table 7-10
Special Use Airspace in the KTA/KLOA Airspace ROI

Number/Name	Effective Altitude (in feet)	Time of Use	Controlling Agency
A-311	To 500 AGL (to 152 meters AGL)	0700-2200	No A/G

Source: NACO 2002
Notes:
A = Alert area; No A/G = No air to ground communications

Military Training Routes

There are no formal, published military training routes in the KTA/KLOA airspace ROI. The A-311 alert area, which extends beyond the ROI, is used for helicopter training exercises, with an average of 3,500 aircraft movements per month (Ahching 2002a, 2002b).

En Route Airways

No low altitude en route airways enter or transect the ROI. However, general aviation aircraft use the airspace in the ROI. This includes all civil aviations operations other than scheduled air services and unscheduled air transport operations for hire.

Airports and Airfields

There are no airports, airfields, or heliports in the ROI.

Air Traffic Control

Air traffic in the ROI is managed by the Honolulu Control Facility.

7.4.2 Environmental Consequences

Summary of Impacts

Table 7-11 summarizes impacts on airspace. Neither the Proposed Action, the Reduced Land Acquisition, nor No Action would have impacts on airspace in the ROI.

Table 7-11
Summary of Potential Airspace Impacts at KTA/KLOA

Impact Issues	Proposed Action	Reduced Land Acquisition	No Action
Reduction in navigable airspace	○	○	○
New or modified special use airspace	○	○	○
Change to a military training route	○	○	○
Change in en route airways, or IFR procedure	○	○	○
Restriction of access to airport/airfield	○	○	○
Obstruction to air navigation	○	○	○
Aviation Safety	○	○	○

In cases when there would be both beneficial and adverse impacts, both are shown on this table. Mitigation measures would only apply to adverse impacts.

LEGEND:

⊗ = Significant
⊘ = Significant but mitigable to less than significant
⊙ = Less than significant
○ = No impact
\+ = Beneficial impact
N/A = Not applicable

Proposed Action (Preferred Alternative)

No Impacts

Reduction in Navigable Airspace. There would be no requirement for new or modified special use airspace associated with the Proposed Action or any requirement for the imposition of any flight restrictions, thus no reduction in the ROI's navigable airspace.

New or Modified Special Use Airspace. The proposed UAV flights would normally be conducted within the R-3109 and R-3110 restricted area complex southwest of KTA or within the W-189 warning area off the northern coast of O'ahu; thus, the UAV flights would use existing special use airspace. Although the nature and intensity of utilization varies over time and by individual special use airspace area, the proposed UAV flights represent precisely the kinds of activities that the special use airspace was created for. The UAV flights would not represent an adverse impact on special use airspace and would not conflict with any airspace plans, policies, or controls.

Change to a military training route. There are no published military training routes in the ROI, and no new aircraft activity is proposed at KTA or KLOA. Consequently, no changes to military training routes would result.

Change in en route airways, or IFR procedures. There are no low altitude en route airways in the ROI, and no new aircraft activity is proposed. Consequently, no changes to existing or planned IFR minimum flight altitudes, published or special instrument procedures, or IFR departure procedures would be required, and VFR operations would not be required to change from a regular flight course or altitude.

Restriction of access to airports/airfields. With no new aircraft activity associated with the Proposed Action, access to, or the use of, airports/airfields available for public use would not be affected, and commercial or private airport/airfield arrival and departure traffic flows would not be affected.

Obstruction to air navigation. Construction of two 100-foot (31-meter) FTI antenna on KTA would be well below the 500-foot (152-meter) above ground level threshold for an obstruction to air navigation specified by the FAA (FAA 2001); thus, this would not constitute an obstruction to air navigation.

Aviation safety. With no new aircraft activity proposed, no new aviation safety issues, and no adverse impacts on public health and safety are anticipated. The strict procedures and rules in place governing flight operations in both controlled/uncontrolled navigable airspace and special use airspace, coupled with the Army's excellent aviation safety record in Hawai'i make future adverse impacts on public health and safety extremely unlikely.

For those UAV flights that could not be contained wholly within restricted area or warning areas, their operations would be conducted in accordance with well-defined FAA procedures for remotely operated aircraft. At least 60 days before UAV operations, the FAA regional office in Honolulu would have to approve the UAV flights, which would be contingent on

the Army demonstrating that the flights would be as safe as those for manned aircraft. Methods include radar observation, forward or side-looking cameras, electronic detection systems, observation from one or more ground sites, or a combination thereof (FAA 2001). In addition, coordination, communications, route and altitude procedures, and lost link/mission abort procedures would all have to be identified. Authorized UAV flights and the other proposed training activities at KTA would have no adverse impact to aviation safety and thus public health and safety.

Reduced Land Acquisition Alternative

The impacts associated with Reduced Land Acquisition would be identical to those described for the Proposed Action.

No Action Alternative

No Impacts

The existing baseline for airspace would continue under the No Action Alternative. Continued support for status quo current force training at KTA would have no impacts on navigable controlled/uncontrolled airspace, special use airspace, military training routes, en route airways, or airports/airfields, nor would it create obstructions to air navigation in the airspace ROI. Thus, there would be no impacts on airspace because none of the factors considered in determining impacts apply.